PATENT COOPERATION TREATY

Translation

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference Y0424-PCT			e	FOR FURTHER AC	TION	See Form PCT/IPEA/416
International application No.				International filing date	(day/month/year)	Priority date (day/month/year)
PCT/JP2004/010781			81	22.07.2004	ļ	24.07.2003
Internati	onal Paten	t Classification	(IPC) or nati	onal classification and IF	PC .	
	C07D215/56, A61K31/47, C07D401/12, A61K31/4709, C07D405/12, C07D401/06,					
1	Applicant ASTELLAS PHARMA INC.					
1.	 This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 					nternational Preliminary Examining Authority
2.	This REI	PORT consists o	of a total of	6	sheets, including this cover sheet.	
3.	This repo	ort is also accom	mpanied by Al	NNEXES, comprising:		
	а. 🗌	(sent to the a	pplicant and	to the International Burn	eau) a total of	sheets, as follows:
	sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).				mended and are the basis for this report and/or	
	sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental					
	, \square	Box.				
	b	(sent to the I	nternational .	Bureau only) a total of (i	ndicate type and number	r of electronic carrier(s))
		1-4-4-4				, containing a sequence listing and/or tables
				readable form only, as trative Instructions).	indicated in the Supplei	mental Box Relating to Sequence Listing (see
4.	This rep	ort contains indi	cations relati	ng to the following items	s:	
		Box No. I	Basis of the	report		
	<u>Ц</u>	Box No. II	Priority			
	<u></u>	Box No. III	Non-establi	shment of opinion with r	n regard to novelty, inventive step and industrial applicability	
	Box No. IV Lack of unity of invention		ty of invention			
	Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement					
	Box No. VI Certain documents cited			uments cited		
		Box No. VII	Certain defe	ects in the international a	pplication	
		Box No. VIII	Certain obs	ervations on the internati	onal application	
Date of submission of the demand D			1	Date of completion of thi	is report	
Name ar	nd mailing	address of the	PEA/JP		Authorized officer	
Facsimile No.				Telephone No.		

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International application No.

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Box No. I	Basis of the report			
	egard to the language, this report is based on the internation ed under this item.	al application in the language in which i	t was filed, unless otherwise	
	This report is based on translations from the original language into the following language which is the language of a translation furnished for the purposes of:			
	international search (Rule 12.3 and 23.1(b))			
	publication of the international application (Rule 12.4)			
L	international preliminary examination (Rule 55.2 and/o			
2. With receive	egard to the elements of the international application, this is ing Office in response to an invitation under Article 14 are port):	report is based on (replacement sheets we referred to in this report as "original."	which have been furnished to the ly filed" and are not annexed to	
	the international application as originally filed/furnished			
	the description:			
:	pages		as originally filed/furnished	
	pages*			
	pages*	received by this Authority on		
	the claims:			
	nos.		as originally filed/furnished	
	nos.*	as amended (together with	any statement) under Article 19	
İ	nos.*	received by this Authority on		
	nos.*	received by this Authority on		
	the drawings:			
	shects		as originally filed/furnished	
	sheets*			
		received by this Authority on		
	a sequence listing and/or any related table(s) – see Supplem			
		icinal Box Relating to bequeine Bland		
3.	The amendments have resulted in the cancellation of:			
ŀ	the description, pages			
	the claims, nos.			
	the drawings, sheets/figs			
	the sequence listing (specify):			
	any table(s) related to sequence listing (specify):			
4.	This report has been established as if (some of) the amen they have been considered to go beyond the disclosure as f	dments annexed to this report and listed iled, as indicated in the Supplemental B	d below had not been made, since ox (Rule 70.2(c)).	
	the description, pages			
	the claims, nos.			
	the drawings, sheets/figs			
	the sequence listing (specify):			
	any table(s) related to sequence listing (specify):			
* If it e	em 4 applies, some or all of those sheets may be marked "su	perseded."		

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement				
1.	Statement			
	Novelty (N)	Claims 1-21	YES	
		Claims	NO	
	Inventive step (IS)	Claims 1-21	YES	
		Claims		
	Industrial applicability (IA)	Claims 1-21	YES	
		Claims		
Ļ	Cit time and amboutions (Bul	270.70		
2.	Citations and explanations (Rul Document 1:	GB 2372986 A (XENOVA LTD.), 11 September		
	Document 1.	2002 (11.09.02), entire text; claim 12		
		(Family: none)		
	Document 2:	WO 02/98856 A2 (SCHERING AG.), 12 December		
	Document 2.	2002 (12.12.02), entire text & US		
		2003/60474 A & EP 1412349 A2		
		& AU 2002/316191 B		
	Document 3:	JP 2001-139555 A (Pfizer Products Inc.),		
	Document 5.	22 May 2001 (22.05.01), entire text &		
		EP 1099701 Al & CA 2325358 Al		
		& US 2002/132806 A		
	Document 4:	WO 01/57037 Al (COR THERAPEUTICS INC.), 09		
	Document 4.	August 2001 (09.08.01), entire text;		
		Registry No.478004-95-4, 478004-97-6		
		& AU 2001/36644 B & US 2002/25961 A		
		& US 2002/77486 A & EP 1257550 Al		
		& JP 2003-522177 A & US 2003/162774 A		
		& US 2004/147576 A		
	Document 5:	DATABASE CHEMCATS ON STN, (2003) Accession		
	Document J.	No. 2003:2205826, Registry No.375351-23-8		
	Document 6:	DATABASE CHEMCATS ON STN, (2002) Accession		
Ī	Document 0.	No. 2002:2172297, Registry No.375351-23-8		
	Dogument 7:	DATABASE CHEMCATS ON STN, (2002) Accession		
	Document 7:	DATABAGE CHEMICATO ON STN, (2002) ACCESSION		

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement			
	No. 2002:163154, Registry No.375351-23-8		
Document 8:	WO 98/23592 Al (WAKUNAGA PHARM CO., LTD.),		
	04 June 1998 (04.06.98), entire text		
	& EP 945435 Al & US 6136823 A		
Document 9:	WO 02/92571 Al (ASTRAZENECA AB.), 21		
	November 2002 (21.11.02), entire text & EP		
	1387830 Al & AU 2002/306038 B		
Document 10:	JP 50-29574 A (ALLEN & HANBURYS LTD.), 25		
	March 1975 (25.03.75), entire text		
	& DE 2407744 Al & FR 2218896 Al		
	& GB 1433774 A & CA 1025856 A1		
Document 11:	JP 50-35191 A (ALLEN & HANBURYS LTD.), 03		
	April 1975 (03.04.75), entire text &		
	DE 2415767 Al & FR 2230356 Al		
	& US 3943141 A & GB 1444369 A		
	& US 4024255 A & CA 1029726 A1		
Document 12:	JP 2002-531567 A (ASTRAZENECA UK LTD.), 15		
	June 2002 (15.06.02), entire text		
	& WO 00/34283 Al & EP 1135391 Al		
	& US 2003/144305 A & EP 1386917 Al		
	& EP 1386921 Al		
Document 13:	WO 03/22214 A2 (Millennium Pharm Inc.), 20		
	March 2003, entire text & US 2003/153556 A		
	& AU 2002/336462 B		

The quinolone derivative as presented in formula (I-a) set forth in claim 7 and the platelet aggregation inhibitor or P2Y12 inhibitor containing the quinolone derivative presented by the formula set forth in claim 1 are not disclosed in any of documents 1-13 listed above and cited in the international search report. Moreover, these features would not be obvious to a person skilled

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or ind citations and explanations supporting such statement	ustrial applicability;
in	e art.	
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Supplemental Box	
In case the space in any of the preceding boxes is not sufficient. Continuation of:	
IPC	
C07D401/14, C07D417/12, C07413/12, C07D40	09/12,
A61K31/4725, C07D401/04, C07D405/06, C07D	0405/04,
C07F9/60, /00, A61P7/02, A61P9/10, A61P4	1/00